arranged at an acute angle relative to one of principal directions of extent of the light waveguide.

27. The light source element according to claim 26 wherein a light infeed unit at an aperture region of a respective reflector is provided at the light waveguide, said light infeed unit comprising a light source arranged in front of the aperture region such that light radiation emitted during operation by the light source penetrates into the light waveguide with an oblique angle.

28. The light source element according to claim 27 wherein at least one triangular projection is formed in at least one of at least one longitudinal lateral surface and the opposite surface of the light waveguide, a lateral surface of said projection being covered by a reflector and another lateral surface of the projection lying free toward the outside and forming the aperture region.

29. The light source element according to claim 26 wherein the light waveguide comprises a shape such that the light exit face and the opposite surface of the light waveguide describe an angle differing from zero.

30. The light source element according to claim 26 wherein at least one of the light exit face and the opposite surface of the light waveguide comprise light-scattering sections and plane sections, and an area ratio of the plane sections to the light-scattering sections along the light waveguide is set such that a uniform luminance of the light source element is achieved.

31. The light source element according to claim 26 wherein the reflectors are integrally connected to one another.

32. The light source element according to claim 26 wherein a material of the reflectors is capable of being injection molded and the reflectors are manufactured by injection molding.

33. The light source element according to claim 26 wherein a material of the reflectors is formed of a thermoplastic polyester on a base of polybutyl-eneterephthalar.

34. The light source element according to claim 26 wherein a material of the reflectors comprises Pocan®.

35. The light source element according to claim 26 wherein reflectors are formed of one of a reflective and diffusely back-scattering film.

36. The light source element according to claim 35 wherein the film is formed on a base of polycarbonate.

37. The light source element according to claim 35 wherein at least one opening is formed in the film for passage of light radiation.

38. The light source element according to claim 26 wherein the light waveguide comprises a projection extending beyond a lateral surface and aligns with the light exit surface, at least one light source being arranged under said projection.

39. The light source element according to claim 38 wherein the surface of the projection facing toward the light source is covered with a film.

40. The light source element according to claim 35 wherein the film is at least one of coated and printed with white color.

41. The light source element according to claim 26 wherein the light source element forms a closed ring.

42. The light source element according to claim 27 wherein at least one light source is a semiconductor light-emitting diode.

43. A liquid crystal display with a light source element, comprising:

a liquid crystal element arranged at a side of a light exit face of the light source element;

the light source element comprising a light waveguide having said light exit face and at least one light entry face;

a surface lying opposite the light exit face and at least some of lateral surfaces connecting the light exit face and the opposite surface being covered with reflectors that at least one of reflect and diffusely return light; and

the light entry face being formed by a part of at least one of the lateral surfaces and the opposite surface not provided with a reflector and being arranged at an acute angle relative to one of principal directions of extent of the light waveguide.

44. The liquid crystal display according to claim 43 wherein the liquid crystal element is held spaced from the light exit face by spacers.

45. A method for manufacturing a light source element, comprising the steps of:

manufacturing a light waveguide in an injection molding process, whereby a mold of an injection molding apparatus has its bottom surface and at least a part of lateral surfaces lined with a film that at least one of reflects and diffusely back-scatters light;

injecting a transparent plastic into a cavity;

removing the light waveguide after a curing; and

arranging at least one light source at at least one lateral surface of the light waveguide.

46. The method according to claim 45 wherein the film in the mold of the injection molding apparatus is applied at all sides, and openings corresponding to the at least one light source are created in the film before application for passage of light radiation.

47. A method for manufacturing a light source element, comprising the steps of:

manufacturing a light waveguide;

manufacturing with a deep drawing process a film that at least one of reflects and diffusely back-scatters light, the film comprising a bottom surface and at least one lateral surface;

applying the film to the light waveguide; and

arranging at least one light source at at least one lateral surface of the light waveguide.

48. The method according to claim 47 wherein openings corresponding to the at least one light source are created in the film before the application for the passage of light radiation.

49. The method according to claim 47 wherein the film is at least one of coated and printed with white color.

50. The method according to claim 47 wherein the film contains polycarbonate.

51. A method for introducing light into a light waveguide functioning as a light source element, the light waveguide having a light exit face and at least one light entry face, comprising the steps of:

covering with reflectors that at least one of reflect and diffusely return light at least a portion of a surface lying opposite the light exit face and at least some of lateral surfaces connecting the light exit face and the opposite surface; and

forming the light entry face by a part of at least one of the lateral surfaces and the opposite surface not provided with a reflector, and arranging the light entry face at an acute angle relative to one of principle directions of extent of the light waveguide.

52. A method for introducing light into a light waveguide functioning as a light source element for a liquid crystal display, comprising the steps of:

covering with reflectors that at least one of reflect and diffusely return light at least a portion of a surface lying opposite a light exit face and at least some of lateral surfaces connecting the light exit face and the opposite surface; and

forming the light entry face by a part of at least one of the lateral surfaces and the opposite surface not provided with a reflector, arranging the light entry face at an acute angle relative to one of principle directions of extent of the light waveguide, and providing at an aperture region of the light entry face a light source.

REMARKS

The Specification has been amended for improved readability and clarity and in accordance with U.S. practice.

Newly claims are presented drawn in accordance with U.S. practice. These new claims are not any narrower than the original PCT prosecuted claims and the new claims are not presented for patentability reasons under the Festo decision.

An Information Disclosure Statement is enclosed for the Examiner's review.